

Application No.: 10/598,609
Attorney Docket No.: 18244-6100

Amendment to the Title of the Invention:

Please amend the title of the invention to read as follows:

A METHOD AND SYSTEM FOR PROCESSING SOUND SIGNALS FOR A SURROUND LEFT CHANNEL AND A SURROUND RIGHT CHANNEL

Amendments to the Specification:

Please amend the specification of the application as follows.

Please replace paragraph 4 on page 9 with the following amended paragraph:

The next stage of sound processing system 2 Fig. 2 is an energy rebalance block 9, shown in detail in Fig. 4. The level of the surround channel S is boosted proportionally to the level of the front channel F in order to give the listener a maximum surround experience. To this end, the left and right components F_L, F_R of the front channel F are scaled in a scaling block 900 and forwarded to a band-pass filter 901. The mean of the resulting signal is calculated in a mean calculation block 903 902. Similarly, the left and right components S_L, S_R of the surround channel S are scaled in a scaling block 903 forwarded to a band-pass filter 904, after which the mean of the resulting signal is calculated in a mean calculation block 904 905. The output of the mean calculation block 903 905 for the front channel F is divided by the output of the mean calculation block 904 905 for the surround channel S, by block 906, to give an energy quotient for the two channels. This is then passed first through a saturation filter 907 and then through a low-pass filter 908 to discard unwanted higher frequencies. The output of the low pass filter is then used to scale the level of the input surround channel S, in block 909, to give a modified output signal of the surround channel S. The parameters for the processing stages in the energy re-balance block 9 are chosen carefully so that the resulting energy level of the output signal of the surround channel S never exceeds the energy level of the front channel F. In this way, the mixing of the original sound signals is respected.